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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/700,505	11/05/2003	Shunji Natsuka	022219-000120US	9880

20350 7590 09/21/2006

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EXAMINER	
KIM, TAEYOON	
ART UNIT	**PAPER NUMBER**
1651	

DATE MAILED: 09/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/700,505	NATSUKA ET AL.	
	Examiner	Art Unit	
	Taeyoon Kim	1651	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 August 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *17-38* is/are pending in the application.

4a) Of the above claim(s) *17-36* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *37 and 38* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *05 November 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *11/05/03*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claims 17-38 are pending.

Election/Restrictions

Applicant's election with traverse of Group III (claims 37 and 38) in the reply filed on Aug. 22, 2006 is acknowledged. The traversal is on the ground(s) that searching the claims as filed in their entirety would place no undue burden on the Examiner. This is not found persuasive because an undue burden would ensue from the examination of multiple inventions (product, method of using the product and apparatus using the product). In the current application, there are multiple SEQ IDs are disclosed in the claims and different inventive subject matters are claimed. Burden lies not only in the search of US Patents, but in the search for literature and foreign patents and examination of the claim language and specification for compliance with the statutes concerning new matter and distinctness.

The requirement is still deemed proper and is therefore made FINAL.

Claims 17-36 are withdrawn from consideration as being drawn to non-elected subject matter. Claims 37 and 38 have been considered on the merits.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 37 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The phrase "...sequence segment amplified by..." does not clearly claim or point out the source of a template used for the amplification. Various different templates such as human Fuc-T VII cDNA or total RNA or purified mRNA can be used for amplification.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 37 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Seed et al. (US 5,858,752) in view of Sasaki et al. (1994, J. Biol. Chem. 269:14730-14737).

Claims 37 and 38 are drawn to a murine Fuc-TVII enzyme comprising a catalytic domain encoded by a segment amplified by SEQ ID NO:3 and SEQ ID NO:4 (claim 37); and the catalytic domain consisting of residue 2194 to 3085 of SEQ ID NO:1 (claim 38).

Seed et al. teach a murine Fuc-TVII enzyme, encoded from a murine Fuc-TVII cDNA, and any analog or fragment thereof (column 16, lines 34-37).

Although Seed et al. do not particularly teach a catalytic domain of a murine Fuc-TVII enzyme, the fragments of a murine Fuc-TVII of Seed et al. comprise a fragment

consisting of the catalytic domain of a murine Fuc-TVII enzyme. A person of ordinary skill in the art would deduce the sequence of the catalytic domain of a murine Fuc-TVII enzyme based from the catalytic domain of a human Fuc-TVII enzyme taught by Sasaki et al. (see Abstract).

It would therefore have been obvious for the person of ordinary skill in the art at the time the invention was made to synthesize a murine Fuc-TVII enzyme of Seed et al. comprising a catalytic domain using a recombinant DNA technology based on the catalytic domain of a human Fuc-TVII of Sasaki et al.

The skilled artisan would have been motivated to make such a modification because the catalytic domain of the enzyme is a minimum requirement for the function of enzymatic activity. Therefore, a person of ordinary skill in the art would have been synthesized a murine Fuc-TVII enzyme comprising at least a catalytic domain of the enzyme by deducing the sequence of a murine Fuc-TVII based on a human sequence of Sasaki et al.

The person of ordinary skill in the art would have had a reasonable expectation of success in identifying a catalytic domain of a murine Fuc-TVII enzyme and generate a murine Fuc-TVII enzyme comprising a catalytic domain because it was successfully carried out by Sasaki et al. with human Fuc-TVII enzyme.

Therefore, the invention as a whole would have been prima facie obvious to a person of ordinary skill at the time the invention was made.

Conclusion

No claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Taeyoon Kim whose telephone number is 571-272-9041. The examiner can normally be reached on 8:00 am - 4:30 pm ET (Mon-Fri).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Wityshyn can be reached on 571-272-0926. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Art Unit 1651

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